

WHAT IS CLAIMED IS:

1. An information record/read apparatus comprising:

an involatile memory including a plurality of sectors which
constitute part of a data recording area and are a data erasure
unit, a plurality of blocks which are formed by dividing each
of the plurality of sectors and each have a data recording area
and a block state management area for recording data indicating
as to whether data is in an unrecorded, recording or recorded
state in the data recording area, and a data recording state
management area for recording data indicating recording states
of the data in all the plurality of sectors; and

a control section for controlling, according to the record
data in the data recording state management area of said
involatile memory or to the record data in the block state
management area and in the data recording state management area,
said involatile memory in a manner that writes data cyclically
into the data recording areas of the plurality of blocks of all
the sectors, reads the record data, collectively erases the
record data on a sector by sector basis, and updates the record
data in the block state management area and data recording state
management area in accordance with write, read or erasure of
the data.

2. The information record/read apparatus according to claim 1,
wherein the data recording state management area, which is
provided independently of the plurality of sectors, records data
on numbers of blocks that record data, data on the number of
a block that records latest data, and data on the number of a
data erasure target sector, and wherein said control section

acquires from the data recording state management area the data on the numbers of the blocks that record the data, the data on the number of the block that records the latest data, or the data on the number of the data erasure target sector, and carries out writing, reading and erasing data in accordance with the acquired data.

3. The information record/read apparatus according to claim 1, wherein the data recording state management area, which is provided within an area of each of the plurality of sectors, records data indicating a data erasure state of an immediately preceding sector, wherein said control section calculates data on numbers of blocks that record data and the number of a block that records latest data from the data recording state management area and block state management area, or retrieves data on the number of a data erasure target sector from the data recording state management area, and wherein said control section carries out writing, reading and erasing of data in accordance with the data calculated or retrieved.

4. The information record/read apparatus according to claim 1, wherein said control section controls said involatile memory in a manner that erases the record data during a period of time from the data read to data write.

5. The information record/read apparatus according to claim 1, wherein said control section controls said involatile memory in a manner that collectively erases data recorded in individual blocks of an erasure target sector after writing data in at least one of the blocks of a sector other than the erasure target

sector.

6. The information record/read apparatus according to claim 5,
wherein to carry out data recording during collective erasure
of the record data in the erasure target sector, said control
section controls said involatile memory in a manner that gives
priority to data recording processing by interrupting the
collective erasure.